

MCF 3M

Chapter 4 Test Review Test Wednesday

Expansion

Factoring

Identifying the 2 Zeros/Roots

Finding Vertex Form -

Completing the Square

Finding Standard Form

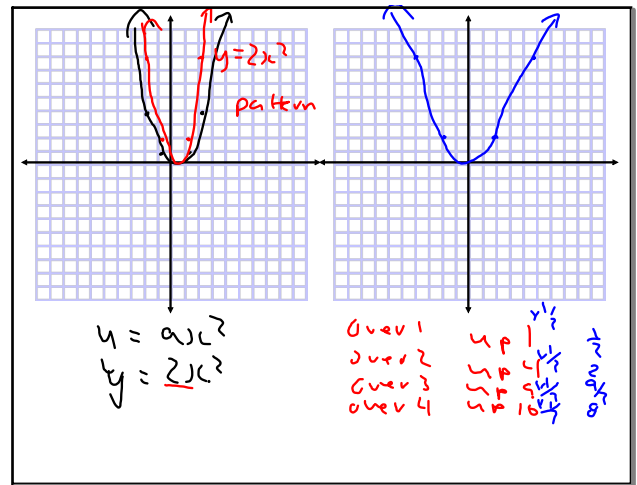
Quadratic Formula

WORD PROBLEMS

p 226 1,2,3,4 & 5

p254-255 q 1-10

Mar 10-8:12 AM



Mar 11-10:12 AM

Complete The Square

$$f(x) = -4x^2 - 8x + 12$$

$$f(x) = -4(x^2 + 2x) + 12$$

partial factor

$$f(x) = -4(x^2 + 2x + 1 - 1) + 12$$

$$f(x) = -4(x + 1)^2 + 4 + 12$$

$$f(x) = -4(x + 1)^2 + 16$$

[-1, 16]

Mar 11-9:43 AM

$$f(x) = x^2 + 2x - 35$$

factored zeros

$$f(x) = x^2 + 7x - 5x - 35$$

$$f(x) = x(x + 7) - 5(x + 7)$$

$$= (x + 7)(x - 5)$$

S = -7 t = +5

A	M
-35	
x	
5	+7

Mar 11-10:07 AM

p 223 q 7 A = 400

x = w Roots at 400

$$f(x) = 60x - 2x^2$$

$$400 = 60x - 2x^2$$

$$0 = -2x^2 + 60x - 400$$

$$0 = -2x^2 + 60x - 400$$

$$0 = -2x^2 + 60x - 400$$

$$a = -2, b = 60, c = -400$$

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

$$x = \frac{-60 \pm \sqrt{60^2 - 4(-2)(-400)}}{2(-2)}$$

$$x = \frac{-60 \pm \sqrt{3600 - 3200}}{-4}$$

$$x = \frac{-60 \pm \sqrt{400}}{-4}$$

$$x = \frac{-60 \pm 20}{-4}$$

$$x = \frac{-60 + 20}{-4} = \frac{-40}{-4} = 10$$

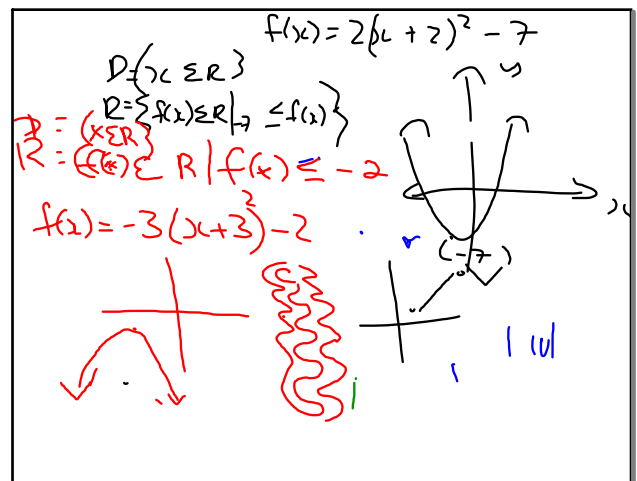
$$x = \frac{-60 - 20}{-4} = \frac{-80}{-4} = 20$$

Hence

Hence

Therefore the optimal dimensions of a fence with an area of 400m² is 20x20 or 10x40.

Mar 24-10:52 AM



Mar 24-10:57 AM

#7

Sally

$$h(t) = -5t^2 + 10t$$

$$h(t) = -5(t^2 - 2t)$$

$$h(t) = -5(t^2 - 2t + 1 - 1)$$

$$h(t) = -5(t-1)^2 - 1$$

$$h(t) = -5(t-1)^2 + 5$$

(1, 5)

The ball reaches a maximum height of 5m at 1 sec. Therefore it is a dangerous ball.

$$t = 5$$

$$h(t) = m$$

Dangerous

Ball

3m

p 120-121 q. 11, 12,
15, 16 & 18

p 184 q. 1-10

Nov 2-9:39 AM

Nov 2-8:39 AM